# Relationship Among Diabetes Distress, Decisional Conflict, Quality of Life, and Patient Perception of Chronic Illness Care in a Cohort of Patients With Type 2 Diabetes and Other Comorbidities

Brigida A. Bruno,[1] Dorothy Choi,[2] Kevin E. Thorpe,[3] and Catherine H. Yu[1–4]

## OBJECTIVE

The primary outcome is to evaluate the relationship between diabetes distress and decisional conflict regarding diabetes care in patients with diabetes and two or more comorbidities. Secondary outcomes include the relationships between diabetes distress and quality of life and patient perception of chronic illness care and decisional conflict.

## RESEARCH DESIGN AND METHODS

This was a cross-sectional study of 192 patients, ≥18 years of age, with type 2 diabetes and two or more comorbidities, recruited from primary care practices in the Greater Toronto Area. Baseline questionnaires were completed using validated scales: Diabetes Distress Scale (DDS), Decisional Conflict Scale (DCS), Short-Form Survey 12 (SF-12), and Patient Assessment of Chronic Illness Care (PACIC). Multiple linear regression models evaluated associations between summary scores and subscores, adjusting for age, education, income, employment, duration of diabetes, and social support.

## RESULTS

Most participants were >65 years old (65%). DCS was significantly and positively associated with DDS ($\beta = 0.0139$; CI 0.00374–0.0246; $P = 0.00780$). DDS–emotional burden subscore was significantly and negatively associated with SF-12–mental subscore ($\beta = -3.34$; CI $-4.91$ to $-1.77$; $P < 0.0001$). Lastly, DCS was significantly and negatively associated with PACIC ($\beta = -6.70$; CI $-9.10$ to $-4.32$; $P < 0.0001$).

## CONCLUSIONS

We identified a new positive relationship between diabetes distress and decisional conflict. Moreover, we identified negative associations between emotional burden and mental quality of life and patient perception of chronic illness care and decisional conflict. Understanding these associations will provide valuable insights in the development of targeted interventions to improve quality of life in patients with diabetes.

[1]Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
[2]Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Ontario, Canada
[3]Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada
[4]Division of Endocrinology and Metabolism, St. Michael's Hospital, Toronto, Ontario, Canada

Corresponding author: Catherine H. Yu, yuca@smh.ca

Patients with diabetes are often burdened by multiple comorbidities and disease complications. As a result, they are faced with competing health concerns and anxiety, which may lead to decisional conflict with regards to diabetes care and psychological distress, respectively (1,2). Due to the strain of daily self-management routines and fear of complications, patients with diabetes often have poor emotional health and perceive a reduced quality of life (3,4). In turn, those with greater diabetes distress, lower health-related quality of life, and lower patient assessment of chronic care delivery have poorer glycemic control, highlighting the relevance of these patient-centered outcomes on clinical outcomes (1,5–7). Although the relationship between decisional conflict and glycemic control is not well established, greater engagement in decision making and less psychological distress lead to better self-management behaviors, which in turn are associated with better glycemic outcomes (8).

Diabetes distress is an emotional state, distinct from depression, that affects many patients with diabetes (9). It is the psychological distress related to the complex and demanding self-care regimens required to manage diabetes (10). The Diabetes Attitudes, Wishes and Needs (DAWN2) study demonstrated that 46% of people with diabetes had negative psychosocial health (11). Predictors of diabetes distress include low education, poor glycemic control, young age, and presence of diabetes complications (6,12). Several studies have shown that increased diabetes distress is associated with reduced quality of life, poor psychological well-being (3,4), poor glycemic control, and unsuccessful self-management behaviors (1,6). Conversely, increasing psychosocial well-being may improve health outcomes (13). Thus, evaluating the correlates of diabetes distress with other constructs may inform interventions in management strategies for diabetes.

Decisional conflict is the perception of uncertainty in choosing options. This includes feeling uninformed, unclear about personal values, and unsupported in decision making (2). It is a central determinant of decision making, especially in the context of multiple treatment options and competing health concerns—challenges often encountered by patients with diabetes (14). Several studies have demonstrated that uncertainty with decision making results in psychological and emotional distress in patients with breast cancer and prostate cancer (15–17). Conversely, greater emotional distress can contribute to decisional conflict due to an impairment of clear thinking (2). However, specific to patients with diabetes, the relationship between decisional conflict and diabetes distress has not been investigated. Thus, we aimed to examine the association between diabetes distress (as well as its emotional burden subscore) and decisional conflict (as well as its uncertainty subscore).

Health-related quality of life is a multidimensional, patient-centered outcome measure that combines patients' perception of their physical, psychological, and social well-being into a quality of life experience, which may not be reflected by biological outcomes alone (4,18,19). It has been posited as an important health outcome measure, as lower health-related quality of life is associated with poor glycemic control and greater diabetes-related complications (3,6). In contrast to diabetes distress, health-related quality of life assesses overall health, providing a holistic perspective of quality of life. With respect to known relationships between diabetes distress and quality of life, increased diabetes distress negatively impacts overall quality of life (3,4). Others have reported that the mental component of quality of life is particularly affected (20). Moreover, patients with diabetes have poor emotional well-being due to the fear of complications and the overwhelming nature of self-management regimens (5,12). However, it is unknown whether the emotional burden component of diabetes distress accounts for the relationship with the mental component of quality of life. We aimed to investigate this relationship, which could lend support to targeting emotional burden when managing diabetes distress (9).

Patients' perception of chronic illness care examines the extent to which patients receive care in accordance with the Chronic Care Model (21). Specifically, it assesses the quality of patient-centered care and self-management support and is associated with increased engagement in self-management behaviors, improved quality of life, and higher rating of health care (7). Increased patient activation, a subconstruct of patient assessment of chronic care, has been associated with better dietary and exercise habits and increased engagement in shared decision-making activities (22). With respect to diabetes care, patient involvement and activation are necessary for improved health outcomes because daily self-management and decision making require active engagement and motivation (8,22,23). While decision support is an element of the Chronic Care Model (21), and previous studies have reported the relationship among patient involvement, self-management behaviors, and decisional conflict (8,22,24), no studies have evaluated the relationship between patient assessment of chronic illness care and decisional conflict. Thus, we aimed to evaluate the direct relationship between patient assessment of chronic care (and, in particular, its patient activation component) and decisional conflict.

Hence, diabetes distress, decisional conflict, quality of life, and patient perception of care are all important constructs in the care of persons with diabetes. These constructs can be measured using the Diabetes Distress Scale (DDS), Decisional Conflict Scale (DCS), Short-Form Survey 12 (SF-12), and Patient Assessment of Chronic Illness Care (PACIC) scale, which have been used across the population with diabetes (9,12,18,21,25). This study is a subanalysis of baseline data from a randomized control trial that evaluated the impact of an interprofessional shared decision making aid on decisional conflict, diabetes distress, patient assessment of chronic illness care, and quality of life in patients with diabetes. We sought to determine the relationship among these variables at baseline in order to better understand the mechanism of potential impact of decision quality on patient-centered outcomes (26). Despite the clinical utility of the above constructs, as well as the general associations between psychological distress and decisional conflict, diabetes distress and quality of life, and patient involvement and decisional conflict, the relationships among these specific constructs and their respective psychometric scales remain unclear. Understanding the relationship between these constructs may inform the development of targeted

interventions to improve patient-centered care and quality of life in patients with diabetes. Thus, we a priori selected to evaluate potential associations among the constructs illustrated in Fig. 1 and hypothesized that:

1. Decisional Conflict and Diabetes Distress: the DCS total score and uncertainty subscale score will be positively associated with the DDS total score and emotional burden subscale score, respectively.
2. Diabetes Distress and Health-Related Quality of Life: the DDS emotional burden subscale score will be negatively associated with the SF-12 total score and mental component subscale score.
3. Patient Assessment of Chronic Care and Decisional Conflict: the PACIC total score and patient activation subscale score will be negatively associated with the DCS total score.

## RESEARCH DESIGN AND METHODS

### Study Design
This is a cross-sectional study of 192 patients, ≥18 years of age, with type 2 diabetes and two or more comorbidities. This study is a subanalysis of baseline data from a large randomized control trial evaluating the impact of an interprofessional shared decision-making tool for patients with diabetes on decisional conflict (26). We reported our study according to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines for a cross-sectional study (Supplementary Table 1) with details on the original study and recruitment published elsewhere (26).

### Setting and Participants
Patients were recruited from 10 primary care practices in a large Canadian metropolitan area. Patients ≥18 years of age diagnosed with type 2 diabetes and at least two other comorbidities were eligible. A list of possible comorbidities can be found in Supplementary Table 2. Patients were excluded if they did not speak English, had documented cognitive deficits, were unable to give informed consent, had limited life expectancy (<1 year), or were unavailable for follow-up.

### Outcome Measures
The primary outcome of this study was to evaluate the relationship between decisional conflict (DCS summary and uncertainty subscale scores) (15) and diabetes distress (DDS total and emotional burden subscale scores) (18). Secondary outcomes include the evaluation of the association between diabetes distress (DDS emotional burden subscale score) and quality of life (SF-12 mental component subscale score) (10), and patient perception of chronic care (PACIC total and patient-activation subscale scores) (21) and decisional conflict (DCS summary score) (15). We a priori selected these relationships to evaluate, which are summarized in Table 2. Studies have demonstrated that the DCS, DDS, and SF-12 scales vary with age (10,18,27); thus, we have controlled for age in our analyses. Specifically, younger individuals experience greater diabetes distress, decreased decisional conflict, better physical quality of life, and decreased mental quality of life, which is reflective of different life and social circumstances.

### Data Sources/Measurement
Participants were asked to complete a self-reported questionnaire that included items from well-validated psychometric scales: DDS, DCS, SF-12, and PACIC (2,10,18,21) (Table 1). The DDS, DCS, SF-12, and PACIC measures of patient-reported outcomes are well validated and commonly used and were selected by patients, as they represent constructs most valued by them following a clinical encounter in the context of their diabetes management (26).

### Study Size
A sample of 192 participants was used, in which we conducted secondary analysis of the baseline data collected from the randomized control trial described elsewhere (26).

### Quantitative Variables
The quantitative variables include the scores from the four psychometric scales (DDS, SF-12, PACIC, and DCS). Associations among scales were studied based on comparison of total scores or comparison of subscale scores with total scores as defined a priori.

### Statistical Methods
Multiple linear regression was used to assess associations among the selected scales while controlling for potentially confounding variables of age, education, income, employment, ethnicity, family support, and duration of diabetes. A $P$ value ≤0.05 was considered as the threshold for statistical significance. The adjusted relationships of interest were estimated from the regression models along with 95% CIs. Complete case analyses were performed, rather than using imputation methods, for a variety of reasons. First, the degree of missing data is relatively small for each
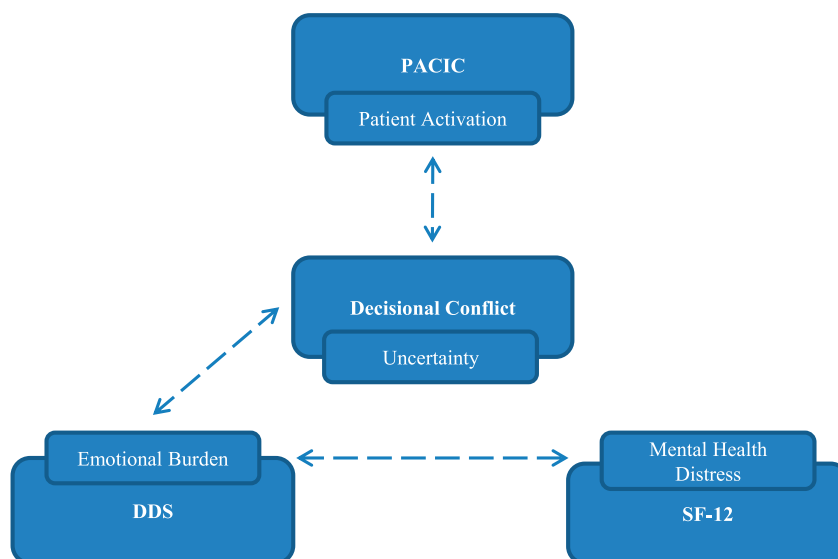


**Figure 1**—Framework of potential associations among DDS, DCS, SF-12, and PACIC a priori selected based on literature.

**Table 1—Summary of psychometric scales used in participant baseline questionnaires**

| Scale | Construct assessed | Subscores | Scoring format (i.e., Likert) | Number of items |
|---|---|---|---|---|
| SF-12 (18) | Health-related quality of life | Physical Role, Physical Function, Emotional Role, Social Function, Mental Health, Vitality, Pain, General Health | 0–100, divided into a mental component score (MCS) and a physical component score (PCS) | 12 |
| DDS (10) | Diabetes distress | Emotional Burden (EB), Regimen Distress (RD), Physician Distress (PD), Interpersonal Distress (ID) | 6-point Likert scale, ranging from 1 (no problem) to 6 (serious problem) | 17 |
| PACIC (21) | Chronic illness care | Patient Activation (PA), Delivery System (DS), Goal Setting (GS), Problem Solving (PS), and Follow-up (FU) | 5-point Likert-type scale, ranging from 1 (none of the time) to 5 (always) | 20 |
| DCS (2) | Decisional conflict | Uncertainty (US), Informed Values Clarity (IVC), Support and Effective Decision (ED) | 5-point Likert scale, ranging from 0 (strongly agree) to 4 (strongly disagree) | 16 |

variable. Analysis sample sizes for the models range from 151 to 160, which are still sufficient to estimate all coefficients in the models based on the typical guideline of 10 observations per coefficient. Given the pattern and knowledge of the data collection process, the data are most likely missing at random and possibly completely at random, in which case the complete case analysis is unbiased. Finally, because the goals of this analysis are hypothesis generating in nature, we decided a simpler approach was sufficient at this stage of investigation.

## RESULTS

The study population included 192 patients, 97 males (52%) and 89 females (48%) (6 nonrespondents), who were recruited from primary care practices in the Greater Toronto Area. The majority of patients were aged ≥65 years (65%), received college education or greater (62%), and earned an annual income of $60,000 or less (54%). The most common comorbidities were musculoskeletal, heart, and mental conditions (31%, 25%, and 21%, respectively). Complete participant demographic characteristics are outlined in Table 2.

### Relationship Between DCS and DDS Scales

The DCS summary score was significantly associated with the DDS total score ($F = 8.08$; $\beta = 0.0142$; CI 0.00431–0.024; $P = 0.0051$) (Table 3). However, no significant association was found between the uncertainty subscore of DCS and the emotional burden subscore of DDS ($F = 0.6383$; $\beta = 0.00252$; CI −0.00806 to 0.0131; $P = 0.6383$) (Table 3).

### Relationship Between DDS and SF-12 Scales

The emotional burden subscore of DDS was significantly associated with SF-12 total score ($F = 16.52$; $\beta = -3.76$; CI −5.6 to −1.93; $P < 0.0001$) (Table 3); this relationship remained significant when compared specifically with the mental component subscore of SF-12 ($F = 23.35$; $\beta = -3.27$; CI −4.61 to −1.93; $P < 0.0001$) (Table 3).

### Relationship Between PACIC and DCS Scales

The DCS summary score was significantly associated with the PACIC summary score ($F = 27.76$; $\beta = -6$; CI −8.25 to −3.755; $P < 0.0001$) (Table 3); this association remained significant when DCS summary score was compared specifically with the patient activation subscore of PACIC ($F = 20.19$; $\beta = -3.988$; CI −5.75 to −2.23; $P < 0.0001$) (Table 3).

### Adjusted Analyses

Adjusted analyses were conducted for age, education, and income, and additional adjustments were conducted for duration of diabetes, employment, ethnicity, and family support (Supplementary Table 3).

## CONCLUSIONS

Our study has identified previously unreported relationships among DDS, DCS, SF-12, and PACIC with implications in targeting interventions at improving patient-centered care in patients with diabetes.

### DCS and DDS

We demonstrated that DDS is positively associated with DCS, which is consistent with the relationship between decisional uncertainty and psychological and emotional distress among patients with chronic illness, as reported in the literature (15,16). While the relationship between psychological distress and decisional uncertainty has been studied throughout the literature, our findings expand on this and establish a specific and novel relationship between the constructs of decisional conflict and diabetes distress. This is clinically relevant, as patients with diabetes are particularly vulnerable to psychological distress, depression, and decisional conflict (3,9,24). However, contrary to our hypothesis, no significant association was found between the uncertainty subscore of DCS and the emotional burden subscore of DDS in particular, despite literature suggesting that decisional uncertainty leads to psychological distress among patients with chronic illness (15). Thus, it remains unclear whether specific subscores account for this underlying association. A recent study suggests that DDS may be best interpreted through its individual subscores as opposed to its total score (28); thus, it would be interesting to examine which DDS subscore, if any, accounts for the association with decisional conflict. Specifically, regimen distress, deriving from the many self-care demands faced by patients with diabetes, may be the most important component of diabetes-related distress because it has the strongest association with clinical outcomes such as $HbA_{1c}$ (6,24). As such, the regimen distress subscore of DDS may contribute most toward decisional conflict. Alternatively, because of the importance of a collaborative patient–physician relationship in the decision-making process (23),

**Table 2—Study participant characteristics including sex, age, education, and income within their respective category groupings for analysis (N = 199)**

| Characteristic | Number of participants [n (%)] | Number of nonrespondents |
|---|---|---|
| Sex | | 6 |
| Male | 97 (52) | |
| Female | 89 (48) | |
| Age (years) | | 6 |
| 18–24 | 1 (1) | |
| 25–34 | 2 (1) | |
| 35–44 | 3 (2) | |
| 45–54 | 17 (9) | |
| 55–64 | 43 (23) | |
| 65–74 | 71 (38) | |
| 75–84 | 40 (22) | |
| 85+ | 9 (48) | |
| Education | | 11 |
| Below high school | 24 (13) | |
| High school | 44 (24) | |
| College | 50 (28) | |
| Below bachelor's degree | 5 (3) | |
| Bachelor's degree | 38 (21) | |
| Postgraduate degree | 20 (11) | |
| Income (Canadian dollars) | | 29 |
| <10,000 | 11 (7) | |
| 10,000–19,000 | 21 (13) | |
| 20,000–29,000 | 10 (6) | |
| 30,000–39,000 | 20 (12) | |
| 40,000–49,000 | 15 (9) | |
| 50,000–59,000 | 11 (7) | |
| 60,000–69,000 | 7 (4) | |
| 70,000–79,000 | 10 (6) | |
| 80,000–89,000 | 8 (5) | |
| 90,000–99,000 | 12 (7) | |
| 100,000–149,000 | 16 (10) | |
| 150,000+ | 23 (14) | |

Distribution of study participant data is in counts and percentage, with number of nonrespondents indicated.

physician-related distress may also contribute toward the association with decisional conflict. Thus, further elucidating the relationship between diabetes distress and decisional conflict will help us understand the sources of decisional conflict and inform the development of behavioral and goal-setting interventions.

**DDS and SF-12**

We found that the emotional burden subscore of DDS was negatively correlated with SF-12 total score, as well as the mental component subscore, supporting the role of emotional burden in mental quality of life. Although this specific finding has not been reported before, it is consistent with the role of emotional

distress and poor diabetes outcomes (6) and confirms the relationship between diabetes distress and quality of life (4,12,24). This is clinically relevant, as it has been shown that patients with diabetes with depression and emotional distress related to their comorbidities have an increased risk of mortality (29). Furthermore, diabetes-related distress and depressive symptoms may result in poor adherence to medications and lifestyle changes, leading to poor health outcomes (24). Taken together, because the emotional burden subscore of DDS is associated with reduced mental health, targeting interventions such as psycho-education and mindfulness-based cognitive therapy may be helpful in clinical practice to reduce diabetes distress (9).

**PACIC and DCS**

We identified a new association between PACIC and DCS; this association remained significant when the patient-activation subscore of PACIC was compared with DCS. This result is consistent with the association between patient involvement and reduced decisional conflict among patients with chronic illness (22) and emphasizes the importance of patient-centered care in decision making (8,23). Patients who are more actively involved in treatment decision making have better adherence to treatment and improved clinical outcomes (8). Moreover, effective communication between patients and their health care provider has been associated with reduced decisional conflict (8), highlighting the importance of patient–provider relationships in the shared decision-making process. Graffigna et al. (23) have suggested that the ability of health care professionals to support patient autonomy in care management is crucial in facilitating patient engagement. As such, the more patients perceive that their health care provider is able to motivate them toward self-management, the more patients report higher levels of activation, engagement, and quality of life. Thus, demonstrating a relationship between PACIC and DCS underlines the importance of patient engagement and effective clinician communication to facilitate shared decision making and reduce decisional conflict.

**Limitations and Strengths**

There are several limitations and strengths to consider. First, although we

**Table 3—β values of the selected associations between DDS and SF-12, PACIC and DCS, and DCS and DDS with their respective selected subscores**

| Scale comparisons | β value, CI (P value) |
|---|---|
| SF-12 and DDS–emotional burden subscore | −3.76, −5.6 to −1.93 (<0.0001) |
| SF-12–mental component subscore and DDS–emotional burden subscore | −3.27, −4.61 to −1.93 (<0.0001) |
| PACIC and DCS (summary scores) | −6, −8.25 to −3.755 (<0.0001) |
| PACIC–patient activation subscore and DCS | −3.985, −5.75 to −2.23 (<0.0001) |
| DCS and DDS (total scores) | 0.0142, 0.00431–0.024 (0.0051) |
| DCS–uncertainty subscore and DDS–emotional burden subscore | 0.00252, −0.00806 to 0.0131 (0.6383) |

β values were adjusted for age, education, and income.

accounted for the confounding variables of age, education, income, employment, ethnicity, family support, and duration of diabetes, we did not account for the number and types of individual comorbidities and their relative impact on each of the outcomes. Adriaanse et al. (30) have shown that both the mental and physical component subscores of SF-12 decrease significantly with an increasing number of comorbidities, and particular comorbidities affected the physical component subscore more than others (30). Moreover, the presence of two or more diabetes-related comorbidities has been linked to symptoms of depression, anxiety, and lower quality of life (31). Thus, it is difficult to predict the impact of these comorbidities on our selected outcomes. However, the complexity of our sample in terms of the presence of two or more comorbidities is also a strength, as it is representative of patients with diabetes, and few studies include patients with complex comorbidities (1). It is also important to note that some of the reported comorbidities of this cohort increase with the aging process and may not be due to diabetes and thus may represent a potential confounder. Second, it is difficult to account for differing severity of diabetes and other life stressors among our participants, which would affect each of these outcomes to varying degrees. Third, glycemic control (HbA$_{1c}$) was not evaluated, which poses a limitation to the clinical implications of our study. However, each of our outcomes has been shown to be associated with glycemic control (1,5–7), and thus our findings have potential to improve this clinical outcome. Furthermore, while optimal glycemic control is a central goal of diabetes care, quality of life is an increasingly relevant, patient-centered outcome that has been shown to be positively associated with better glycemic outcomes and fewer diabetes complications (32). Fourth, our study did not capture specialist care of patients with diabetes, as participants were sampled from 10 primary care group practices across southern Ontario. Given that patients with poorer glycemic control and advanced disease are often cared for by endocrinologists (33), our results may not be applicable to these patients. Shah et al. (34) report that specialists may provide better diabetes-focused

care and improved access to nonphysician care providers and patient education resources. However, given that 80% of patients with diabetes are managed in the primary care setting, our results are generalizable to the majority of patients with diabetes. Fifth, we were unable to conduct a subgroup analysis for type of diabetes, given the relatively small number of patients with type 1 ($n = 7$) versus type 2 ($n = 192$) diabetes in our sample. Sixth, the majority of participants in our study were ≥65 years of age (65%). According to 2017 data from Statistics Canada, ~47% of people with diabetes are ≥65 years of age (35). This may have resulted in a slight overrepresentation of this population, which may limit the generalizability of our study. In contrast, given the aging population, the distribution of our sample may present as a strength in terms of the potential to effectively implement interventions toward a particularly complex cohort in clinical practice (36). Given the age-group of our cohort, we controlled for both age and duration of diabetes in our analyses. Seventh, our sample was well educated, with 62% of participants having received a college education or greater. This does not accurately reflect all patients with diabetes, as the majority of patients with diabetes have received high school education or less (37,38) and may limit the generalizability of our results. However, our education distribution is similar to other studies (11,21,25) and may reflect self-selection bias, as questionnaires may exclude those with lower literacy (38). Eighth, there is potential for selection bias, as we used a small sample (199 participants) from a randomized controlled trial (26). Ninth, there is potential for response bias due to patient self-report of questionnaires. Lastly, due to the observational nature of our study, our findings only reveal associations, not causal relationships or mechanisms, by which these associations exist. Nonetheless, this is the first study to establish associations between decisional conflict and diabetes distress and patient perception of chronic illness care and decisional conflict. We also expanded on the relationship between DDS and SF-12 to reveal an unexplored link between the emotional burden subscore of DDS and the mental component subscore of SF-12.

## Implications for Research, Practice, and Next Steps

We propose a conceptual model (Fig. 1) in which targeting any one of these constructs in the clinical setting may result in improved quality of life and better patient-centered care. Future studies should validate this model and expand on these associations in a less educated sample with a balanced proportion of patients with type 1 and type 2 diabetes and correlate the scales to medical outcomes such as HbA$_{1c}$. In addition, to determine whether a causal relationship between diabetes distress and decisional conflict, emotional burden and quality of life, and patient activation and decisional conflict exists, longitudinal intervention studies targeted toward each of these constructs should be conducted. For example, subsequent studies could assess the effect of treating diabetes distress through cognitive behavioral therapies, psychoeducation, or other support interventions on quality of life, decisional conflict, and clinical outcomes (9,39). In addition, future studies should examine associations between other subscores of DDS in pairing with DCS to better understand which subscore accounts for the overlying association between the summary scores. Finally, it would be interesting to determine whether there is a direct relationship between DDS and PACIC, independent of DCS, which would lend additional support to the importance of the Chronic Care Model in diabetes care.

Our findings offer important considerations for the development and implementation of interventions to improve patient activation, reduce decisional conflict, and reduce diabetes distress to ultimately improve patient-centered care and quality of life. For example, there is limited research on the effect of targeting decisional conflict (through strategies such as shared decision making) on diabetes distress and patient health outcomes (8,40). Thus, this study underscores the importance of further assessment of the outcomes of decisional conflict, diabetes distress, patient perception of chronic illness care, and quality of life and their relation to one another.

## Conclusion

This study evaluated the relationships among diabetes distress, decisional conflict, patient perception of chronic illness

care, and quality of life in the care of patients with diabetes and complex co-morbidities. Our main findings demonstrated: *1*) a positive association between diabetes distress (DDS) and decisional conflict (DCS), consistent with evidence reported in the literature regarding the relationship between decisional uncertainty and psychological distress; *2*) a positive association between the emotional burden aspect of diabetes distress and the mental component aspect of quality of life, which expands on the existing relationship between diabetes distress and quality of life reported in the literature; and *3*) a negative association between patient perception of chronic illness care and decisional conflict. These new relationships could inform the development of clinical interventions to target diabetes distress or decisional conflict to improve quality of life and patient-centered care in people with diabetes.

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